

Claims

[Claim 1]

An aluminum alloy for casting having excellent rigidity and a low linear expansion coefficient, containing 13-25% by mass of silicon, 2-8% by mass of copper, 0.5-3% by mass of iron, 0.3-3% by mass of manganese, 0.001-0.02% by mass of phosphorus, and the remainder comprising aluminum and inevitable impurities, wherein the total amount of iron and manganese is 3.0% by mass or greater.

[Claim 2]

An aluminum alloy for casting having excellent rigidity and a low linear expansion coefficient, containing 13-25% by mass of silicon, 2-8% by mass of copper, 0.5-3% by mass of iron, 0.3-3% by mass of manganese, 0.5-6% by mass of nickel, 0.001-0.02% by mass of phosphorus, and the remainder comprising aluminum and inevitable impurities, wherein the total amount of iron, manganese, and nickel is 3.0% by mass or greater.

[Claim 3]

An aluminum alloy for casting having excellent rigidity and a low linear expansion coefficient recited in either Claim 1 or 2, further containing one or more of 0.1-1.0% by mass of chromium, 0.05-1.5% by mass of magnesium, 0.01-1.0% by mass of titanium, 0.0001-1.0% by mass of boron, 0.1-1.0% by mass of zirconium, 0.1-1.0% by mass of vanadium, or 0.01-1.0% by mass of molybdenum.